

**Utah Citizens Advisory Commission
on
Chemical Weapons Demilitarization**

Thursday, March 20, 2003

6:30 p.m. - 8:30 p.m.

Council Chambers

City Hall

90 North Main

Tooele, Utah

Members present:

Deborah Kim, Chair
Beverly White
Geoffrey Silcox
Jane Bowman
Dennis Downs
Michael Keene
John Bennett

Members excused:

Sid Hullinger
Rosemary Holt
Dan Bauer
David Ostler
Gene White

1. Welcome/Minutes – Deborah Kim

Debbie Kim called the meeting to order at 6.30 p.m. The minutes were approved with a few minor changes. Motion made by Gene White, second by David Ostler. All voted in favor.

2. Chemical Materials Agency – Mr. Mike Parker, Director

A brief bio was distributed to all members about Mr. Parker. Mr. Parker discussed the creation and the role of the Chemical Materials Agency in chemical demilitarization. CMA focuses on the operational process of chemical demilitarization.

Q-GS-When the NRC comes out with the report, how do their recommendations come down through the system and affect things?

A-There a number of ways that it is affected. The NRC interactively develops with the operating plants continuously while they are doing their study. There is a lot of information exchange allowing the Army to look at the concerns and take them into consideration and change the design of facilities or how the workforces are trained etc. It is addressed at multiple levels and at as near real-time as possible.

3. Revised TOCDF medical/DECON procedures and TOCDF Sleep study – Dr. Gary Matravers, TOCDF Medical Director

An informal study was conducted by Dr. Matravers office regarding sleep disorders and medical procedures at the incident in July. A handout was provided. The study was actually to look into rotating shifts. The study was a survey of 19 questions with yes or no responses or a brief narrative. The results indicated that the majority of people prefer the current rotating shift vs. alternative shifts. About 80% of employees that responded indicated that they have some health issues related to rotating shifts such as difficulty falling asleep and some insomnia. This is not unusual to this type of work and shift rotation.

Q-DK-Has there been any thought to share this information with the sleep lab at the University of Utah?

A-I have not thought about it.

Comment-I can get the contact information for you. There is a sleep lab there as well as IHC, and is an available resource.

The new alternative DECON methods include additions of warm water showers, increased privacy and the addition of soft washcloths and sponges. Some additional procedures call for direct medical intervention and increased and more specific medical inquisitiveness. A guideline was developed for employees and families for post-exposure care including additional contact with them to ensure their safety and health.

Q-DK-Have you prepared any briefings for employees/families to take with them?

A-I have not done anything like that.

Comment-That is such an easy thing to do. In a stressful situation people tend to forget things. I would love to participate in getting this put together.

A-Yes, that is very simple.

Comment-Dale Ormond-There was a team from DA Safety that came in two weeks ago that came in with members, a Dr. from the Dept of Army Surgeon General office, CDC, went through the medical facility, the procedures, talked with all the people, looked at equipment, and ran a drill simulating exposure incident, the team gave a big up check to the DECON team. This was DASafety's final check with the investigation and the team has done a good job implementing the recommendations. This was a very positive response.

4. Deseret Chemical Depot Update – Colonel Cooper

A handout was provided. There were no leakers since the last meeting. Generally, when the temperatures fluctuate is when leaking starts to occur. Currently, testing of mustard ton containers is underway to characterize stockpile. Utah National Guard is still stationed at the site. It is being discussed about rotating the units, this has not been determined as to

where the soldiers will come from. The systemization of the Lewisite facility is scheduled for September. The test of the Projectile Washout System is scheduled for May 03 and the preparation of the Metal Parts Furnace in April 03. Currently, under the direction of the Colonel a safety stand down is in force. This is including review of procedures and projects of the last year and look at the implementation of lessons learned. Employees have the authority under the Colonel to stop any unsafe operations.

5. Program Status – Dale Ormond

A handout was provided. Mr. Ormond provided information on the Chemical Demilitarization Program status, which includes Aberdeen, Anniston, Blue Grass, Johnston Atoll, Newport, Pine Bluff, Pueblo and Umatilla facilities.

Cindy King-There was a lawsuit filed in Washington D.C., I am not asking for an answer, just making a comment for the record.

A-There was a lawsuit filed in Washington D.C., action is ongoing at this time.

JG-Do you know when they plan on breaking ground in Colorado?

A-The 2004 date that was referenced was the construction start, not destruction phase. Some construction activities have begun. Destruction phase will begin approximately 2009, 2010.

Mr. Parker-DK-What accounts for the time span, why will it take so long to begin operations?

A-This the Army timeline and is very conservative and take into consideration the history of the program, and include pilot periods.

6. Plant Status/Restart Update – Stephen Frankiewicz

A handout was provided. EG& G has completed all required activities to start VX operations except for the charging of the Central Decontamination System. A letter submittal to PMCD was submitted for restart 3/19/03, just awaiting Government approval to start. The startup sequence will begin with the rockets and will work in a phased approach, beginning with processing 30 rockets per day and ramping up from there. Day shift will be processing rockets and night shift will do the burns.

Q-DO-Why is this process being used for the rockets?

A-SF-We are doing this to get the workers back up to speed and after the trial burn is complete then start processing at night. Want to work out any problems with projectile line. We have all management there to deal with the issues before we start ops 24 hours.

Dale Ormond-There has been a number of issues associated with this restart. The board of investigation came out with nearly 100 recommendations, about 75 were associated with TOCDF. They have all been closed down and addressed, it is my understanding that the Board of Investigation report has been signed off and all those recommendations

have been implemented and verified or there are action plans in place for recommendations that take a longer approach. EG & G ran an operational review (OR) with a lot of outside expertise, a number of issues that were identified and those have been addressed. A preoperational survey from the Government side to evaluate the adequacy of their OR was conducted; Mr. Bunch sent out the safety improvement program (all CAC members have been briefed on this program) and did a final evaluation to make sure all improvements have been done adequately. This program has not been completely implemented, but has been done adequately to operate safely and continue to make improvement. Mr. Parker is looking at giving the final authorization for startup.

JG-I am curious as to some specific steps that were identified in relation to the July incident, in reviewing some of reports, there were a lot of discussion about the operation of the liquid incinerator agent line as it was feeding the agent into the furnace, what kind of repairs and assurances are in place now that we will not see those types of recurrences in the future where agent may plug the line?

A-It appears that most of the plugging was a function of a build up of the fuel oil. There is no indication that agent itself plugged the gun but when subsequent purges were conducted fuel oil stuck on it. The improved process we put in place should alleviate most of that and have significantly redesigned the agent feed system to make it more reliable and don't feel that will be an issue.

Q-If fuel oil was involved in clogging the line, when you dealing with VX which is much more viscous than GB, how are you going to ensure that you don't have the same types of problems occur with the transition to the new agent?

A-The CO spikes is a function of the waste being cut off and moving forward with the purge, and what we have done to address that issue is having moved to a two stage purge where the first part of the purge is 7 1/2 pound pressure, second is a 15lb pressure to mitigate the transient effect which we believe was causing the CO spikes. We think that will get rid of the CO spikes, there is no indication that cycling the valve or building up the pressure was causing the spikes. The agent in the incinerator is completely destroyed so there is no expectation that agent is going to cause the plugging because the agent will be completely vaporized in the temperatures in what the gun is experienced. I think what we are seeing those portions of the fuel oil that aren't necessarily combustible, completely are the things that caused the clogging.

JG-Since that contradicts what came out in the early reports, are you going to revise your reports, (which report?) The Safety Improvement Program, it certainly indicates that there was a correlation between the increased pressure in the lines and CO spike.

A-What it says is "that something is going on that you don't understand very well", do an engineering evaluation to determine reality. You're right, their SIP was put out, we don't understand, no good explanation,

before we authorize operations, do an analysis and figure what is going on. We feel that has been done.

Q-First is that analysis available for review, second, please clarify-did you say that the agent will vaporize in the agent line?

A-No, if I had (I could be wrong), if there was agent in the nozzle of the gun, it would be subject to the temperatures at which the agent is destroyed. No expectation that the agent could become a solid in the agent gun. VX is a pure compound, which has a single boiling point. Diesel fuel is natural product which has a wide span boiling point, so that any residual fuel oil that cooks off from the end of nozzle will evaporate and leave the higher boiling compounds and will sometime coat and cause plugging. VX is a pure compound.

Q-What confidence level is there aren't impurities in VX? As we found in GB?

A-There is some residual stabilizing materials and they are all single compound with single boiling points.

GS-The diesel has hundreds of compounds in it, some of which are high molecular weight and could have a tendency to coat the injectors.

Dale Ormond-There is a possibility to happen with the diesel fuel, but with the agent, highly unlikely. The system is set up and designed to make sure it doesn't.

JG-Is it possible to get a copy of management structure and who they are to understand who is there?

A-Yes, we can get that to you. Tell me where to send it; I will get it to you.

7. DSHW Update – Marty Gray

As a result of July incident, DSHW had an opportunity to review the safety report, and identified a few specific issues that were followed up on. The review has been completed and DSHW is satisfied that our issues were met as well. As of now, EG & G have all the approvals needed. LIC 2 cannot be operated yet. When we approved the agent monitoring plan, we indicated that they cannot operate the metal parts furnace until some changes are made. DSHW wants to monitor the DCD laundry procedures for a potential thermal hazard, we are still working to resolve that issue. Two items are out for public comment. One is for CAMDS permit modification, which allows them to increase their feed from 200 lbs. to 1500 lbs., and a judicial consent decree is tool that is used to resolve a notice violation from our inspections in 2001. This decree will resolve the violations.

Q-JG-Could you please talk more about the incident at JACADS and the sludge? Was this an accumulation of sludge or was it isolated to misc. waste?

A-Ted Ryba-Basically what happened was they were feeding through the misc. waste portion of the campaign and brought in bags of sludge from the spent decon tanks in the end they observed that the sludge was

improperly loaded into the tray. This was caused by procedure non-compliance. All agents have a threshold temperature and temperature considerations for each agent.

8. Citizens Concerns

CAC Meeting Dialogue between Jason Groenwald and Mike Parker
One issue that hasn't been addressed is in reference to the monitoring system inside the facility and how well that is being updated being able to handle VX, and what type of byproducts will be in this facility if VX were to neutralize or be mixed with water.

The second issue is related to, what types of attempts are being made within the Program to look at, what are the entire available options to deal with the stockpile here in Utah, especially given the new updates for schedule and the delays that are anticipated for completion date, and is there consideration, especially about the presentation that was given earlier, about six months estimated completion date for Maryland to eliminate their stockpile of mustard agent. And I'm wondering if there is consideration taking place to look at, could operations here in Utah use technologies being considered in Indiana or Kentucky and Colorado, and if so, could some numbers be put on paper to look at where that could end up, to start neutralizing the bulk mustard agent that we have, or the bulk munitions that we have.

Dave Ostler: Jason, are you seriously considering the possibility of setting aside this billion dollar plant we have out here, and then starting down the long trail of doing another process of dealing with this stuff?

Groenewald: No, it would probably be a more modified approach, looking at the available systems that they have in place, either through the CAMDS facility or at TOCDF currently where you could integrate the possible neutralization technology to...

Ostler: How do you get neutralization out of a burn plant?

Groenewald: Well, those are some of the original designs that should be able to have been looked at when neutralization was being developed. And, I guess the issue is, do we have systems in place that can be utilized so that alternative operating systems could be implemented and complement the current facility, especially given that there have been problems with what to do with secondary waste streams that are currently still in the igloos right now.

Ostler: I think secondary waste streams are far greater in the neutralization process than the one we started here.

Groenewald: Well, in view of the treatment of those, secondary waste that are currently accumulating here, we have had two units that have been taken off the original design, and I think there are legitimate issues related to that. I'm curious if there's an evaluation taking place within PMCD to look at, you know, kind of take a new perspective and new look at what the available options are, because certainly, there have been advances in other ways to deal with this over the last few years, as well.

Ostler: You know, that reminds me of someone who just finished a new million dollar house and then decides that because the wife doesn't like the disposal in the kitchen, contemplates building another one.

Groenewald: Well, first off, it's a matter of looking at what's practical given the available technologies, that this is a good place to try and make the best decision, and not rely totally on decisions that were made decades ago.

Ostler: Well, a billion dollar investment is kind of a lock, in my opinion.

Dale Ormond and others: We have put in ACAMS to monitor for VX approved by CDC, done calibration of all systems, we implemented a permit reviewed by the State of Utah to ensure safety of workers and environment. We monitor VX at a lower concentration, we are doing all that is necessary and appropriate. There are dual ACAMS to monitor for GB. Part of the neutralization issue of VX it leaves a by-product that will be destroyed by chlorine. Chlorine does destroy the by-products, not a vapor hazard, but a potential contact hazard if you just use water, but if you use bleach will kill the by-products. They are only contact hazards, not vapor hazards.

Ostler: One more question. In our meeting last time, they asked a question about the amount of water it took to do a neutralization process, something like 20 gallons for every gallon processed, or something like that. Can salt water be used to do that, because if it can't, it should be a dead issue.

Mike Parker: The neutralization of the agents themselves. The total water consumption is basically a wash whether you're using incineration or neutralization. If you recycle water like they propose to do at Pueblo, depending on how you treat secondary waste. If you treat secondary waste by shipping it off site somewhere else, the water consumption with neutralization with recycle is actually smaller than the incineration process. If you treated all those secondary waste products on site, it would basically be a wash.

Ostler: We shouldn't build another plant to make sure.

Parker: Let me take a stab at the neutralization technology issue. The chem demil program involves the full spectrum, there's multiple technologies being looked at, from thermal treatment by incineration, chemical neutralization, chemical neutralization followed by biotreatment, by supercritical water oxidation. There were other technologies looked at, gas phase refraction; you get hydrogen reduction. It's been a full complement of technologies over many, many years.

Two sites that are processing bulk items will be online relatively soon. The Aberdeen site and the Newport Site, which will validate those technologies for application in dealing with bulk materials. Two sites that will deal with neutralization-based technology to deal with munition configured items are Pueblo and Blue Grass. Those sites, it will be many, many years before the pilot data is available from which to make any kind of decision on application at another site.

The current schedule, even making adjustments for the most recent events here at TOCDF, and using the very, very conservative schedule that was done in the baseline update in 2001 by the Office of the Secretary of Defense, the completion of operations here would precede by many years the availability of data from Blue Grass or Pueblo.

It is possible to consider building a plant like the Edgewood plant, adjusted size-wise, here at Tooele to deal with the bulk mustard items. It's just a totally new plant that would be built next to the existing plant solely to deal with the bulk items. In a programmatic context, it would be relative to cost and schedule application to do that; and whether that in a business context that makes sense or not. And then, moving forward and going through all of the procedures for permitting, getting the public comment, all of the other considerations towards implementation. And when you lay all of that out, the timeline is going to be as long, if not longer, than the current schedule. It could be looked at, but the programmatic issues have to be addressed first. The current system is available and it meets the necessary standards as defined in law of regulation. And if it makes sense from a business context, then you'd have to proceed through all of the necessary public hearings, reviews from processes to determine whether or not it's practical.

Groenewald: I really appreciate that answer and if there's a willingness to look at it, I certainly think that

Parker: We're not driven towards one particular technology, and we have the full spectrum, and in those circumstances where it makes sense in a business context and a programmatic context, and in health and safety, and

if you meet the environmental criteria, etcetera, a hybrid approach would be something we would be willing to pursue. But you need to understand, it would have to be viewed from the full spectrum, and not just from a narrow, one issue perspective. It would have to be dealt with across the full spectrum of the decision making. The health and safety of the citizens of Colorado and the other sites are our primary concern, but we also are spending the taxpayers' money, everybody in this room and a whole lot of other people, and so we need to deal with this in a programmatic context, as well.

Groenewald: I appreciate that. For some of those situations, we're spending less of the taxpayers' dollars. And what I'm wondering is, is there a willingness to do it, and if so, would you begin the process of putting the numbers on paper to look at it?

Parker: The one to pursue would be the systems contractors, EG&G and the other contractors, Washington Group, Bechtel, Parsons and others. Any approach that they believe, in a business context, makes sense to look at it, and drive through the full spectrum of considerations. First of all, it's got to be technically viable. Can it meet all the regulatory requirements fundamentally, and is it from a programmatic sense, cost and schedule, reasonable to do? And then there will be the permitting issues and how those impact the timeline. The system contractor, he comes up and says, "I think that we can look a way of treating these that's potentially cost and schedule effective than thermally treating them in the Metal Parts Furnace, and here's our approach." We'll sit down and walk through that, and if it looks viable in Utah, we'll bring it through the public hearing process as well for implementation so there will be opportunities to look at it. We're open to anything that makes programmatic sense and meets the regulatory requirements and saves the taxpayers' money. And first and foremost, gets rid of this stuff as early as possible to reduce the risk to the public.

Jason-As the public, what I hear you saying is we need to ask PMCD to conduct this study, and ask EG & G to present to you an idea, would PMCD be an appropriate body what it is they want the contractor to do? A-We the Army have a partnership with the systems contractor at an existing facility. This needs to be done as a partnership between the systems contractor and the Army. We partner in whatever we do. You can approach the Army, EG & G we all work together, if you feel you have an approach that will work.

**There being no further business, meeting was adjourned at 8:30 p.m.
Next meeting will be May 15, 2003 at 6:00 p.m. at DEQ.**